

- When, if ever, is the electrode firmly fixed and seated in the right ventricular apex?
- How much redundant "electrode loop" should be allowed in the right atrium?

Needless to say, the questions raised by these cases cannot be dogmatically answered. The answers, as with many aspects of medical practice, depend on the subjective judgment and past experience of each individual physician. Objective ground rules can be applied in a general way but cannot be guaranteed to strictly apply in an individual case. The rules only serve as guidelines; perhaps to decrease risk factors. Nevertheless the relatively high morbidity rate (63 percent)⁵ suggests the need for a more stable and tenacious endocardial pacing electrode. Endocardial pacing electrodes have vastly improved over the past decade¹⁰ but there is still a great need for improvement. The ideal electrode would seem to be one that would not displace or perforate on change in heart size, would seat and fix firmly within 24 hours of implantation and would lend itself to easy removal at anytime in the event of possible problems—for instance, fracture or infection. Unfortunately, such an electrode is not as yet available.

Summary

We have presented two cases of endocardial pacing that were associated with loss of appropriate ventricular capture and function because of changes in heart size that were not anticipated before insertion of the electrode system. One was due to decreasing chronic cardiomegaly with consequent perforation and the other was due to increasing cardiomegaly with exit block. We believe dynamic heart size to be a significant factor in the morbidity associated with this mode of therapy.

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Refer to: Kretschmer KP, LaZerte GD, Pass BR: Polypoid lesion of cecum. *West J Med* 122:334-337, Apr 1975

Polypoid Lesion of Cecum

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NEOPLASMS OF THE COLON commonly are found to be the cause of intestinal obstruction or bleeding. Most of these tumors turn out to be either adenomatous polyps or carcinomas. A few of them prove to be mesenchymal tumors such as lipomas, leiomyomas or lymphomas. Only rarely does the mass prove to be an inflammatory lesion or "pseudotumor." Reported cases of non-neoplastic masses in the gastrointestinal tract have occurred chiefly in the stomach, small bowel and rectum. Most of them have been the result of unexplained lymphoid overgrowth and usually have been termed lymphoid polyps or pseudolymphoma.¹ This report describes a different kind of polypoid pseudotumor presenting in the cecum, associated with chronic inflammation and ulceration of the appendix, and resulting in gross hemorrhage per rectum.

Report of a Case

The patient, a 25-year-old black woman, was admitted to the hospital with a two-day history of bloody stools and frank rectal hemorrhage without any associated gastrointestinal symptoms. Five years before the patient had had an episode of rectal bleeding similar to the current one. On admission to another hospital, the presence of a sickle cell trait was noted. The hemocrit was 31 and serum iron was 39 mg per 100 ml. Results of upper and lower gastrointestinal series and

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Submitted July 1, 1974.

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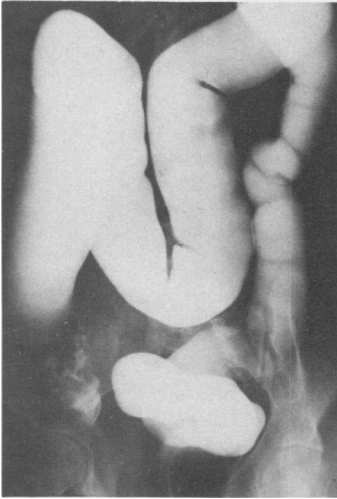


Figure 1.—Polypoid lesion of cecum shown by barium enema.

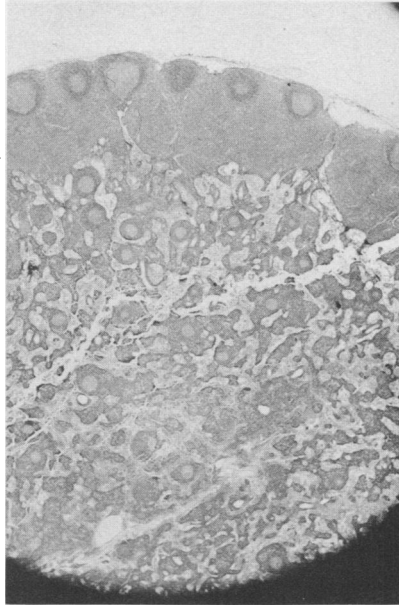


Figure 2.—Section of hyperplastic lymph node, using hematoxylin-eosin stain (reduced from 20 \times).

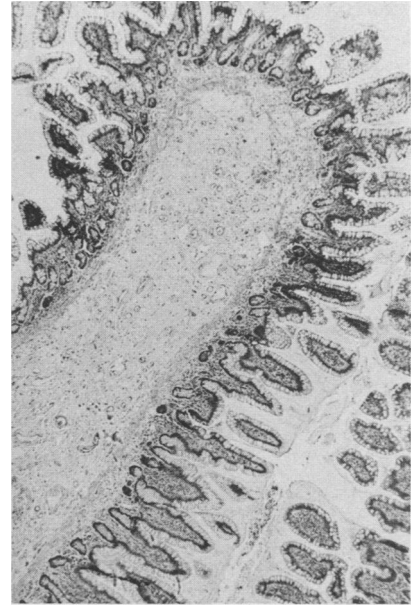


Figure 3.—Section of ileum, using hematoxylin-eosin stain, showing edema (reduced from 50 \times).

sigmoidoscopy were all reported to be normal. The cecum, however, was not well shown in any of the films. The bleeding stopped spontaneously and the patient was discharged with the diagnosis of gastrointestinal bleeding of undetermined origin.

The patient remained well until gross bleeding began again a few days before the present admission. Findings on physical examination were unremarkable. Initial hematocrit was 37, dropping to 31 on the second hospital day. Results of upper gastrointestinal series, small bowel follow through and sigmoidoscopy were normal. A barium enema study showed a polypoid mass along the medial aspect of the cecum (Figure 1). Findings on surgical exploration of the abdomen were normal with the exception of the ileocecal area. A firm mass was palpable within the cecum, the surrounding fatty tissue was indurated and the overlying serosa was puckered and thickened. The appendix could not be identified. Large nodes were palpated in the mesentery of the right colon and terminal ileum. En bloc resection of the right colon, including the mesentery to the origin of the ileocolic artery and ileocolostomy, was carried out. The patient had an uneventful postoperative course and was discharged one week later. There has been an absence of symptoms ever since (32 months as of January, 1975).

Gross dissection of the excised specimen showed

the last 10 cm of the ileum, the cecum and 15 cm of the ascending colon all matted together in fatty tissue traversed by fibrous bands. The lymph nodes were found to be enlarged up to 2 cm and discrete on cross section, with a prominent follicular pattern (Figure 2). The mucosa of the ileum was intact and edematous (Figure 3). The mass within the cecum was a group of multilobulated polyps (Figure 4), some of them arising from the ileocecal valve and all covered by smooth and intact mucosa of normal thickness. The individual polyps ranged from a few mm up to 2 cm in size and some of them were fused together at the tip, their slender stalks forming arches and bridges across the lumen of the gut. The appendix could not be identified externally but examination from the lumen of the cecum showed a stubby diverticulum about 2 cm in length and 1 cm in diameter in the expected position of the appendix. The lining of this small diverticulum appeared red and granular and was continuous with small (1 by 0.1 cm) linear ulcerations in the mucosa of the cecum. Sections through the red granular area showed that the mucosa was extensively ulcerated with pronounced lymphocytic and plasmacytic infiltration extending through the muscular wall. Scant purulent exudate was present on the luminal surface with underlying hyperplasia of capillaries forming granulation tissue which occasionally projected above the surface. A trichrome stain con-

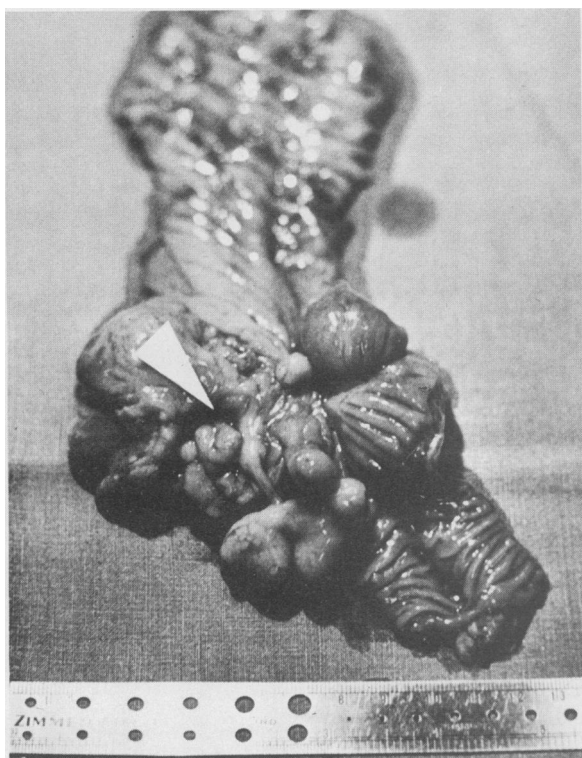


Figure 4.—Opened specimen, with ileum on the right and ascending colon above and out of focus. The ileocecal valve is distorted by multiple polyps on the cecal side. The arrow points to an opening thought to be the appendiceal remnant.

firmed the presence of two layers of muscle in the wall of the diverticulum, proving that it was the appendix and not a sinus tract. The polypoid structures were formed of a great proliferation in submucosal connective tissue sprinkled with a variety of inflammatory cells and covered by well-ordered mucosa with hyperplasia of mucosal lymphoid tissue (Figure 5).

Discussion

Painless rectal bleeding presents a difficult differential diagnostic problem, particularly in younger patients. Rectal examination, sigmoidoscopy and barium enema often fail to provide a clue, and even at exploration it may be impossible to identify the bleeding source. Recently, arteriography has become a valuable diagnostic tool, provided that the bleeding is brisk. Diverticular disease and carcinoma are the two most common causes of rectal bleeding, but are unusual in the young. Inflammatory bowel disease of granulomatous or ulcerative origin rarely presents without associated gastrointestinal symptoms. Familial polyposis of the colon, Meckel's diverticulum,



Figure 5.—Section of typical polyps, using hematoxylin-eosin stain (reduced from 20 \times).

hemangiomas and Wilkie's ulcers are less common causes which have to be considered in the differential diagnosis.

In the case reported here, a barium enema study showed a localized polypoid mass in the cecum. The smooth contour and the suggested translucency of the filling defect led us to the preoperative diagnosis of lipomatous hyperplasia of the ileocecal valve, a benign condition that may present as silent gastrointestinal hemorrhage.² At exploration the gross appearance of a firm ill-defined mass involving the whole thickness of the bowel with serosal puckering, retraction of the mesentery and large regional nodes suggested the possibility of lymphoma or infiltrating carcinoid tumor—both of which have a predilection for the ileocecal region. Consequently, en bloc resection was done. On pathologic examination the findings were those of chronic inflammation with polyp formation. The submucosal connective tissue proliferation, lymphangiectasia and transmural spread to the mesentery suggested granulomatous enteritis but despite exhaustive search we were unable to show the presence of any granulomata. Per-

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sistent ulceration with active inflammation was found mainly in the mucosa of the remnant of the appendix which was centrally embedded in the inflammatory mass. Localization of the disease to this one segment of the bowel and the absence of granulomata led us to discard the possibility of granulomatous enteritis in favor of the more optimistic diagnosis of chronic nonspecific infection arising in the appendix.

Although the polypoid lesions are grossly similar, the pathologic changes in our case are quite

different from those of the lymphoid polyps and pseudolymphomas described by Weaver and Batsakis.¹ A variety of inflammatory pseudotumors in the upper respiratory tract, stomach, small bowel and rectum have been described, but the case discussed here is the first to our knowledge to present as polyps in the cecum—probably as a result of persistent appendicitis.

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